

REMARKS

The Official Action dated April 19, 2011, has been carefully considered. Accordingly, it is believed that the present Amendment is sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present Amendment, the claims have been amended in order to simplify and clarify the pending claims, rather than to narrow the claims in light of the office action. For example, claim 21 has been amended so as to employ the term "target areas" to refer to the locations at which catalyst samples are deposited. This amendment is supported, for example, by ¶ [0033] of the specification as filed (which corresponds to ¶ [0034] of the published application), particular the last line thereof which refers to the "substrate target area." It will be understood that these "target areas" may, for example, refer to separate substrates (e.g., electrodes) provided on the substrate assembly (e.g., separate electrodes mounted in a holding block), or different areas of a single substrate. See, e.g., ¶ [0024] of the specification as filed. Similarly, all of the other claim amendments presented herein are fully supported by the original application, and therefore do not introduce any new matter.

In the outstanding office action, all of the claims were rejected as being obvious over Wu et al. (6,045,671) in view of Stirn (4,596,645) and Bright et al. (6,312,525). Applicants respectfully believe that the claims, as amended herein, are patentable over the cited references.

Wu et al. is explicitly directed to the sequential deposition of components ("chemical substances") on predefined substrate regions using multiple, moveable masks. Multiple combinations of components are deposited on the predefined substrate regions by depositing each component through a mask specific to that component and the desired combinations. While Wu et al. discloses a variety of different and distinct embodiments, as noted in the office action, none of those embodiments employ a cluster of separately controllable, co-focused plasma guns for depositing catalyst materials onto an individual substrate target area aligned with that cluster.

While the office action suggests that the Stirn '645 patent discloses the use of a cluster of separately controllable sputtering guns and that this teaching could be used to modify Wu et al. Applicants disagree with the examiner's characterization of the Stirn '645 patent. In particular,

the sputtering guns in the Stirn '645 patent are clearly not co-focused such that they may be used to apply material onto a target area aligned therewith. As stated in the Stirn '645 patent, the substrate holder must be rotated to ensure uniform application of the material over the entire surface of the substrate. Col. 4, lines 53-56. In fact, Stirn states that this rotational capability is "crucial for obtaining compositional uniformity for co-sputtered materials." Col. 4, lines 65-67. Clearly, the sputtering guns of Stirn are not co-focused such that materials may be deposited onto a discrete target area of a substrate. Thus, Stirn actually teaches away from the modification of Wu suggested by the examiner.

In addition, even if Stirn is deemed to teach a cluster of sputtering guns, the arrangement taught by Stirn would simply not work in any of the embodiments taught by Wu. The whole point of Wu is to allow the careful control of depositing unique materials in predetermined patterns on a substrate. The Stirn '645 patent teaches the exact opposite—rotating the substrate during deposition in order to evenly coat the deposited material onto the entire substrate. Thus, the invention as currently claimed herein is not obvious in view of the cited references.

In determining patentability under 35 U.S.C. §103, it is necessary to determine whether there was an apparent reason to combine the known elements of the prior art in the fashion of the claims at issue, *KSR International Co. v. Teleflex, Inc.*, 550 US 398, 418 (2007). Neither Stirn nor Bright et al. provide any such apparent reason to modify the teachings of Wu et al., or provide any teaching or suggestion of a method for modifying such teachings to result in a system as presently claimed. Accordingly, the rejections under 35 U.S.C. §103 have therefore been overcome. Reconsideration is respectfully requested.

It is believed that the above represents a complete response to the Official Action and places the present application in condition for allowance. In an effort to advance prosecution of this application, the undersigned would like to arrange a telephone interview so that any outstanding objections may be quickly resolved. Reconsideration and an early allowance are requested. Please charge any fees required in connection with the present communication, or credit any overpayment, to Deposit Account No. 503915.

Serial No. 10/757,302
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Reply to Official Action dated April 19, 2011

Respectfully submitted,

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